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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,218	12/01/2003	Kevin T. O'Dougherty	N95.12-0014	2116

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EXAMINER	
PAIK, STEVE S	

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/725,218	O'DOUGHERTY ET AL.	
	Examiner	Art Unit	
	Steven S. Paik	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-15,17-26,28-35 and 37* is/are rejected.

7)☒ Claim(s) *5,16,27,36* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/12/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murayama et al. (US 6,282,458) in view of Brown (US 3,527,985).

Re claims 1-3, Murayama discloses a system comprising

storage means (401) for electrically storing information relating to a liquid;

communication means for storing information to and reading from the storage means;

controller means coupled with the communication means, for controlling processing of the liquid based on information read information from the storage means (see figure 3b).

Murayama is silent about an intrinsic safety barrier isolating a non-hazard zone (a safe area) from a hazard zone (hazardous area).

Brown discloses an electrical barrier device in an electrical conductor (an intrinsic safety barrier) separating a safe area from a hazardous area. The barrier device includes Zener diodes both connected to an electrical reference and arranged to be effectively place in parallel by a normally closed switch serially disposed in the electrical conductor (see the figure). When a condition causing a dangerous voltage will result in the by-pass

of current through the Zener diodes, opening the switch permits disconnecting the device from a working circuit.

In view of Brown's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to further employ an electrical safety barrier in addition to the system of Murayama due to the fact that a proper precaution can be taken to control the unsafe rising of power energy for the purposes of successfully controlling a hazardous area reducing the risks involved in handling inflammable gases or liquid.

Re claim 4, Murayama in view of Brown discloses the system as recited in rejected claim 2 stated above, wherein the intrinsic safety barrier (see the figure of Brown) further includes a fuse (F; col. 1, line 71) connected in series with the plurality of forward conduction diodes (D1 and D2) to prevent overloading the plurality of forward conduction diodes and to limit electrical energy passing into the hazard zone (col. 1, line 26-col. 2, line 14).

Re claim 6, Murayama in view of Brown discloses the system as recited in rejected claim 2 stated above, wherein the intrinsic safety barrier further includes at least one resistor (R2) connected in series with the controller means and the communication means to suppress transient voltage surges at the communication means.

3. Claims 7-15, 17-26, 28-35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murayama et al. (US 6,828,458) as modified by Brown (US 3,527,985) as applied to claim 1 above, and further in view of McCarrick et al. (US 5,953,682).

Re claims 7-14, 18-25, and 29-34, Murayama discloses a system comprising, among other things, a container (702); storage means (401) for electrically storing

information relating to a liquid; communication means for storing information to and reading from the storage means; controller means coupled with the communication means, for controlling processing of the liquid based on information read information from the storage means (see figure 3b); and a connector (201 and 202) for coupling with the cap such that the liquid can be dispensed from the container through the connector.

Brown discloses an electrical barrier device in an electrical conductor (an intrinsic safety barrier) separating a safe area from a hazardous area. The barrier device includes Zener diodes both connected to an electrical reference and arranged to be effectively place in parallel by a normally closed switch serially disposed in the electrical conductor (see the figure). When a condition causing a dangerous voltage will result in the by-pass of current through the Zener diodes, opening the switch permits disconnecting the device from a working circuit.

The teachings of Murayama in view of Brown have been fully discussed with the exception of a user-interface comprising a touch screen, the storage means is a passive radio frequency identification (RFID) tag and a communication means that is a radio frequency antenna and the RFID tag comprising a passive RF transponder and an electrically erasable programmable read-only memory (EEPROM) and including an RF antenna.

McCarrick et al (US 5,953,682) discloses a communication means that is a radio frequency (RF) antenna and the storage means as a passive radio frequency identification (RFID) tag. McCarrick further discloses that the RFID tag comprises a passive RF transponder and an electrically erasable programmable read-only memory (EEPROM).

The user-interface comprises a touch screen capable of receiving input from the user and displaying information about the liquid contained in the container.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have incorporated an RFID tag as taught by McCarrick into the teachings of Murayama in view of Brown for the purpose of collecting and controlling a hazardous area by minimizing the actual visitation of the hazardous area.

Re claims 15, 26, and 35, Murayama as modified by Brown and further in view of McCarrick discloses the system as recited in rejected claims 13, 23, and 32 stated above, wherein the intrinsic safety barrier (see the figure of Brown) further includes a fuse (F; col. 1, line 71) connected in series with the plurality of forward conduction diodes (D1 and D2) to prevent overloading the plurality of forward conduction diodes and to limit electrical energy passing into the hazard zone (col. 1, line 26-col. 2, line 14).

Re claims 17, 28, and 37, Murayama as modified by Brown and further in view of McCarrick discloses the system as recited in rejected claims 13, 23, and 32 stated above, wherein the intrinsic safety barrier further includes at least one resistor (R2) connected in series with the controller and the communication means (RF antenna) to suppress transient voltage surges at the communication means (RF antenna).

Allowable Subject Matter

4. Claims 5, 16, 27, and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: none of the cited prior arts of the record discloses, teaches, or fairly suggests the claimed manufacturing system wherein the intrinsic safety barrier further including a plurality of DC blocking capacitors connected in series with the controller means and the communication means.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nesser et al. (US 6,542,848) disclose a liquid storing container comprising, among other things, a differential pressure gauge and a differential pressure sensor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven S. Paik whose telephone number is 571-272-2404. The examiner can normally be reached on Mon - Fri (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven S. Paik
Primary Examiner
Art Unit 2876

ssp